

Appl. No. 09/917,870

Reply to Examiner's Action dated October 19, 2005

**IN THE CLAIMS:**

1. (previously presented) A method of controlling power of a transmitted communication signal, comprising:

amplifying a first communication signal;

transmitting the first communication signal to a second transmission source;

receiving a second communication signal from the second transmission source, the receiving including receiving at least one parameter derived from the transmitted first communication signal;

determining a measure of interference with the transmitted first communication signal based on the at least one received parameter; and

increasing an average power level of the transmitted first communication signal by clipping the first communication signal prior to amplification by an amount based on the determined measure.

2. (previously presented) The method of claim 1, wherein the at least one received parameter includes a signal-to-noise ratio.

3. (previously presented) The method of claim 1, further comprising:

calculating a signal-to-noise ratio of the transmitted first communication signal based on the at least one received parameter; and wherein

the determining step determines the measure of interference based on the calculated signal-to-noise ratio.

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4. (previously presented) The method of claim 1, wherein

the determining step determines if at least one of short term interference and long term interference with the transmitted first communication signal exists based on the at least one received parameter; and

the increasing step increases the average power level by a first amount if the determining step determines that short term interference with the transmitted first communication signal exists and increases the average power level by a second amount if the determining step determines that long term interference with the transmitted first communication signal exists, the first amount being greater than the second amount.

5. (previously presented) The method of claim 4, wherein the at least one received parameter includes a signal-to-noise ratio (SNR).

6. (previously presented) The method of claim 4, wherein the increasing step comprises:  
first clipping the first communication signal by at least the first amount if the determining step determines that short term interference with the transmitted signal exists; and

second clipping the first communication signal by at least the second amount if the determining step determines that long term interference with the transmitted signal exists.

7. (previously presented) The method of claim 6, wherein the increasing step further comprises:

controlling the gain of the first communication signal based on an amount by which the first communication signal is clipped.

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8. (previously presented) The method of claim 7, wherein the at least one received parameter includes a signal-to-noise ratio (SNR).

9. (previously presented) The method of claim 8, wherein the determining step comprises:

first determining if the SNR is less than a first threshold;

increasing a first counter if the first determining step determines the SNR is less than the first threshold;

second determining if the SNR is less than a second threshold, the second threshold being less than the first threshold;

third determining if the first counter exceeds a third threshold if the first determining step determines the SNR is less than the first threshold and the second determining step does not determine that the SNR is less than the second threshold;

performing the second clipping step if the third determining step determines that the first counter exceeds the third threshold;

increasing a second counter if the second determining step determines the SNR is less than the second threshold;

fourth determining if the second counter exceeds a fourth threshold if the second determining step determines the SNR is less than the second threshold; and

performing the first clipping step if the fourth determining step determines that the second counter exceeds the fourth threshold.

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10. (previously presented) The method of claim 6, wherein the determining step comprises:

first determining if a signal-to-noise ratio (SNR) is less than a first threshold;

increasing a first counter if the first determining step determines the SNR is less than the first threshold;

second determining if the SNR is less than a second threshold, the second threshold being less than the first threshold;

third determining if the first counter exceeds a third threshold if the first determining step determines the SNR is less than the first threshold and the second determining step does not determine that the SNR is less than the second threshold;

performing the second clipping step if the third determining step determines that the first counter exceeds the third threshold;

increasing a second counter if the second determining step determines the SNR is less than the second threshold;

fourth determining if the second counter exceeds a fourth threshold if the second determining step determines the SNR is less than the second threshold; and

performing the first clipping step if the fourth determining step determines that the second counter exceeds the fourth threshold.

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11. (previously presented) The method of claim 5, wherein the determining step includes,

first determining if the SNR is less than a first threshold, increasing a first counter if the first determining step determines the SNR is less than the first threshold,

second determining if the SNR is less than a second threshold, the second threshold being less than the first threshold,

third determining if the first counter exceeds a third threshold if the first determining step determines the SNR is less than the first threshold and the second determining step does not determine that the SNR is less than the second threshold,

increasing a second counter if the second determining step determines the SNR is less than the second threshold, and

fourth determining if the second counter exceeds a fourth threshold if the second determining step determines the SNR is less than the second threshold; and

the increasing step increases the average power level by the second amount if the third determining step determines that the first counter exceeds the third threshold and increases the average power level by the first amount if the fourth determining step determines that the second counter exceeds the fourth threshold.

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12. (previously presented) The method of claim 6, wherein the determining step includes, first determining if a signal-to-noise ratio (SNR) is less than a first threshold, increasing a first counter if the first determining step determines the SNR is less than the first threshold,

second determining if the SNR is less than a second threshold, the second threshold being less than the first threshold,

third determining if the first counter exceeds a third threshold if the first determining step determines the SNR is less than the first threshold and the second determining step does not determine that the SNR is less than the second threshold,

performing the second clipping step if the third determining step determines that the first counter exceeds the third threshold,

increasing a second counter if the second determining step determines the SNR is less than the second threshold, and

fourth determining if the second counter exceeds a fourth threshold if the second determining step determines the SNR is less than the second threshold; and

the increasing step increases the average power level of the transmitted first communication signal by clipping the first communication signal prior to amplification by the second amount if the third determining step determines that the first counter exceeds the third threshold and increases the average power level of the first communication signal by clipping the first communication signal prior to amplification by the first amount, greater than the second amount, if the fourth determining step determines that the second counter exceeds the fourth threshold.

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13. (previously presented) The method of claim 4, wherein  
the determining step determines if at least one of short term interference and long term interference with the transmitted signal exists based on the received parameter; and  
the increasing step includes,  
first clipping the first communication signal by at least the first amount if the determining step determines that short term interference with the transmitted signal exists; and  
second clipping the first communication signal by at least the second amount if the determining step determines that long term interference with the transmitted signal exists.

14. (previously presented) The method of claim 13, wherein the increasing step further comprises:

controlling the gain of the first communication signal based on an amount by which the first communication signal is clipped.

15. (previously presented) The method of claim 14, wherein the at least one received parameter includes a signal-to-noise ratio (SNR).

16. (previously presented) An apparatus for controlling power of a transmitted first communication signal, comprising:

a limiter clipping the first communication signal based on a first control signal;

a gain controller adjusting a gain of output from the limiter based on a second control signal; and

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a controller receiving a second communication signal from a second transmitting source, the second signal including at least one parameter derived from the transmitted first signal, determining a measure of interference with the transmitted signal based on the at least one parameter, and generating the first and second control signals such that an average power level of the transmitted signal is increased based on the determined measure.